

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) A positive working thermal imaging assembly comprising

A - a substrate; and

B - a thermally sensitive imaging element of a composite layer structure comprising

a first layer on the substrate of a ~~polymeric material~~ novolac resin soluble in an aqueous alkali solution, optionally containing a compound that absorbs and converts light to heat and/or a colored dye or pigment;

said first layer being converted on a surface thereof by treatment with a solution at an elevated temperature that contains an active compound ~~or compounds~~ capable of rendering said ~~first polymeric material~~ novolac resin less soluble in an aqueous alkali developer at the point of contact; the first layer being oleophilic, wherein the first layer is treated by contact with said solution for 1 to 120 seconds at a temperature of from 50 to 120°C, and wherein said active compound ~~or compounds are polymeric amines, polyacetals, polyethylene glycol, butylated urea formaldehyde, copolymers of vinyl-pyrrolidone and vinyl acetate, methylated melamine formaldehyde, cellulose esters, or mixtures thereof~~ is a polymeric amine;

optionally, a first intermediate layer between the substrate and the first layer of a polymeric material which is soluble or dispersible in an aqueous solution and that optionally contains a compound that absorbs and converts light or radiation to heat

and/or a colored dye or pigment coated from a solvent that does not substantially dissolve the first layer; and

optionally, a third or top layer over the converted first layer and composed of a polymeric material which is soluble or dispersible in an aqueous solution and that optionally contains a compound that absorbs and converts light or radiation to heat and/or a colored dye or pigment; the first intermediate layer and the third layer being applied with a solvent that does not substantially dissolve the converted first layer.

2. (Previously presented) The positive working thermal imaging assembly according to claim 1, wherein the first intermediate layer and the third layer are present and are mutually exclusive with respect to a compound that absorbs and converts light or radiation to heat and a colored dye or pigment.

3. (Previously presented) The positive working thermal imaging assembly according to claim 1, wherein one of either the first intermediate layer or the third layer is present and contains both a compound that absorbs and converts light or radiation to heat and a colored dye or pigment and the other layer is absent from the assembly.

4. (Currently amended) The positive working thermal imaging assembly according to claim 1, wherein the first layer contains both ~~[[the]]~~ a compound that absorbs and converts light or radiation to heat and a colored dye or pigment and they are absent from the intermediate and third layers.

5. (Cancelled).

6. (Currently amended) The positive working thermal imaging assembly according to claim [[5]]1, wherein the contact process is from 10 to 90 seconds at a temperature of from 60 to 100°C.

7. (Previously presented) The positive working thermal imaging assembly according to claim 6, wherein the contact process is from 20 to 60 seconds at a temperature of from 70 to 90°C.

8. (Currently amended) The positive working thermal imaging assembly according to claim [[5]]1, wherein the contact process is carried out by using a solution containing a non-solvent for the first layer.

9. (Previously presented) The positive working thermal imaging assembly according to claim 8, wherein the contact process is carried out using toluene or water.

10. (Cancelled).

11. (Currently amended) The positive working thermal imaging assembly according to claim [[10]]1, wherein the active compound is in a solution containing from 0.001 and 0.25 weight % thereof.

12. (Previously presented) The positive working thermal imaging assembly according to claim 11, wherein the active compound is in a solution containing from 0.005 and 0.10 weight % thereof.

13. (Previously presented) The positive working thermal imaging assembly according to claim 11, wherein the active compound is in a solution containing from 0.01 and 0.075 weight % thereof.

14-17. (Cancelled).

18. (Previously presented) The positive working thermal imaging assembly according to claim 1, wherein the compound that absorbs and converts light or radiation to heat is a pigment or dye that absorbs radiation between the wavelengths of 700 and 1200nm.

19. (Previously presented) The positive working thermal imaging assembly according to claim 18, wherein the compound is a pigment and is milori blue or carbon black.

20. (Previously presented) The positive working thermal imaging assembly according to claim 18, wherein the compound is a dye.

21. (Previously presented) The positive working thermal imaging assembly according to claim 1, comprising just the first layer on the substrate, the first layer being treated on its upper surface.

22. (Previously presented) The positive working thermal imaging assembly according to claim 1, comprising the substrate, the first layer, the first intermediate layer and the third layer.

23. (Previously presented) A process for preparing a positive working thermal imaging assembly comprising

A - a substrate; and

B - a thermally sensitive imaging element of a composite layer structure; the process comprising

(i) applying on a substrate a first layer of a first polymeric material soluble in aqueous alkali solution, optionally containing a compound that absorbs and converts light to heat and/or a colored dye or pigment; the first layer being oleophilic;

(ii) treating the said first layer on a surface thereof with a solution at an elevated temperature that contains an active compound or compounds capable of rendering said first polymeric material less soluble in an aqueous alkali developer at the point of contact, wherein the first layer is treated by contact with solution for 1 to 120 seconds at a temperature of from 50 to 120°C, and wherein said active compound or compounds are polymeric amines, polyacetals, polyethylene glycol, butylated urea formaldehyde, copolymers of vinyl pyrrolidone and vinyl acetate, methylated melamine formaldehyde, cellulose esters, or mixtures thereof;

optionally, and before step (i) applying a first intermediate layer between the substrate and the first layer of a polymeric material which is soluble or dispersible in an aqueous solution and that optionally contains a compound that absorbs and converts light or radiation to heat and/or a colored dye or pigment coated from a solvent that does not substantially dissolve the first layer; and

optionally, applying a third or top layer over the treated first layer from step (ii); the third or top layer being composed of a polymeric material which is soluble or dispersible in an aqueous solution and that optionally contains a compound that absorbs and converts light or radiation to heat and/or a colored dye or pigment;

the first intermediate layer and the third layer being applied with a solvent that does not substantially dissolve the treated or converted first layer.

24. (Previously presented) The process according to claim 23, wherein the step (ii) is performed by immersing the substrate containing the first layer in a solution at an elevated temperature that contains an active compound or compounds capable of

rendering said first polymeric material to less soluble in an aqueous alkali developer at the point of contact.

25. (Cancelled)

26. (Previously presented) The process according to claim 24, wherein the step (ii) is performed for 10 to 90 seconds at a temperature of from 60 to 100°C.

27. (Previously presented) The process according to claim 26, wherein the step (ii) is performed for 20 to 60 seconds at a temperature of from 70 to 90°C.

28. (Previously presented) The process according to claim 23, wherein the step (ii) is performed by immersing the substrate containing the first layer in a solution containing a non-solvent for the first layer.

29. (Previously presented) The process according to claim 28, wherein the step (ii) is performed by immersing the substrate containing the first layer in a solution containing toluene or water.

30. (Cancelled)

31. (Previously presented) The process according to claim 23, wherein the active compound is in a solution containing from 0.001 and 0.25 weight % thereof.

32. (Previously presented) The process according to claim 31, wherein the active compound is in a solution containing from 0.005 and 0.10 weight % thereof.

33. (Currently amended) The process according to claim ~~[[30]]~~23, wherein the active compound is in a solution containing from 0.01 and 0.075 weight % thereof.

34. (Previously presented) The process according to claim 23, wherein the polymeric material of the first layer is a phenolic resin, a polyvinylphenol or a mixture thereof.

35. (Previously presented) The process according to claim 23, wherein the polymeric material of the first layer is a novolac resin.

36. (Currently amended) The process according to claim 23, wherein the first intermediate layer and third layer are applied and the polymeric material of the first intermediate layer and the third layer is selected from the group consisting of **[[a]]** polyvinylalcohol, **[[a]]** polyvinylpyrrolidone, polyvinylmethyl ether and **[[a]]** polyvinylethyl ether.

37. (Currently amended) The process according to claim 23, wherein ~~wherein the~~ compound that absorbs and converts light or radiation to heat is a pigment or dye that absorbs radiation between the wavelengths of 700 and 1200nm.

38. (Previously presented) The process according to claim 37, wherein the compound is a pigment and is milori blue or carbon black.

39. (Previously presented) The process according to claim 37, wherein the compound is a dye.

40. (Previously presented) The process according to claim 23, wherein only steps (i) and (ii) are performed and the first layer is treated on its the upper surface thereof.

41. (Previously presented) The process according to claim 23, wherein the assembly comprises the first layer on the substrate; the first layer being treated on its upper surface thereof; the intermediate layer and the third layer.

42. (Previously presented) The process according to claim 23, wherein the step (ii) is performed by applying a coating on the substrate using coating rolls; the coating being formed from a coating solution containing an active compound or compounds capable of rendering said first polymeric material of the first layer less soluble in an aqueous alkali developer at the point of contact.

43. (Currently amended) A lithographic printing plate, wherein said plate comprises a substrate and a structure B on the same as disclosed in ~~any of the claims 1-22~~ claim 55 or 56.

44. (Currently amended) Color proofing films or plates and Photoresist comprising a substrate and a structure B on the same as disclosed in ~~any of the claims 1-22~~ claim 55 or 56.

45. (Currently amended) The assembly according to claim ~~[[1]]~~ 55 or 56, wherein the polymer of the polymeric material of the first layer is a condensation product of phenol, o-chlorophenol, o-, m- or p-cresol, p-hydroxy benzoic acid, 2-naphthol or other aromatic monohydroxy monomer with formaldehyde, acetaldehyde, fural, benzaldehyde, or any other aliphatic or aromatic aldehyde.

46. (Previously presented) The assembly according to claim 45, wherein the polymer has a molecular weight in the range from 2,000 to 80,000.

47. (Previously presented) The assembly according to claim 46, wherein other polymers are added to the polymer to improve its plate performance; said other polymers being a butylated melamine formaldehyde resin; a butylated urea formaldehyde resin; or a copolymer of vinyl pyrrolidone/vinyl acetate.

48. (Previously presented) The assembly according to claim 47, wherein the compound that absorbs and converts light to heat is a dye able to absorb radiation from 700 to 1200 nm.

49. (Previously presented) The assembly according to claim 47, wherein the layers may contain a dye at 830 nm and another dye at 1064 nm.

50. (Previously presented) The assembly according to claim 48, wherein the dye is a pyridyl, quinolinyl, benzoxazolyl, thiazolyl, benzothiazolyl, oxazolyl and selenazolyl dye.

51-54. (Cancelled).

55. (New) A positive working thermal imaging assembly comprising

A - a substrate; and

B - a thermally sensitive imaging element of a composite layer structure comprising

a first layer on the substrate of a polymeric material soluble in an aqueous alkali solution, optionally containing a compound that absorbs and converts light to heat and/or a colored dye or pigment;

said first layer being converted on a surface thereof by treatment with a solution at an elevated temperature that contains an active compound capable of rendering said first polymeric material less soluble in an aqueous alkali developer at the point of contact; the first layer being oleophilic, wherein the first layer is treated by contact with said solution for 1 to 120 seconds at a temperature of from 50 to 120°C, and wherein said active compound or compounds are polymeric amines, polyacetals, polyethylene

glycol, butylated urea formaldehyde, copolymers of vinyl pyrrolidone and vinyl acetate, methylated melamine formaldehyde, cellulose esters, or mixtures thereof;

a first intermediate layer between the substrate and the first layer of a polymeric material selected from the group consisting of polyvinylalcohol, polyvinylpyrrolidone, polyvinylmethyl ether and polyvinylethyl ether which is soluble or dispersible in an aqueous solution and that optionally contains a compound that absorbs and converts light or radiation to heat and/or a colored dye or pigment coated from a solvent that does not substantially dissolve the first layer; and

a third or top layer over the converted first layer and composed of a polymeric material selected from the group consisting of polyvinylalcohol, polyvinylpyrrolidone, polyvinylmethyl ether and polyvinylethyl ether which is soluble or dispersible in an aqueous solution and that optionally contains a compound that absorbs and converts light or radiation to heat and/or a colored dye or pigment; the first intermediate layer and the third layer being applied with a solvent that does not substantially dissolve the converted first layer.

56. (New) A positive working thermal imaging assembly comprising

A - a substrate; and

B - a thermally sensitive imaging element of a composite layer structure comprising

a first layer on the substrate of a polymeric material soluble in an aqueous alkali solution, optionally containing a compound that absorbs and converts light to heat and/or a colored dye or pigment;

said first layer being converted on a surface thereof by treatment with a solution at an elevated temperature that contains an active compound or compounds capable of rendering said first polymeric material less soluble in an aqueous alkali developer at the point of contact; the first layer being oleophilic, wherein the first layer is treated by contact with said solution for 1 to 120 seconds at a temperature of from 50 to 120°C, and wherein said active compound or compounds are polymeric amines, polyacetals, polyethylene glycol, butylated urea formaldehyde, copolymers of vinyl pyrrolidone and vinyl acetate, methylated melamine formaldehyde, cellulose esters, or mixtures thereof;

a first intermediate layer between the substrate and the first layer of a polymeric material which is soluble or dispersible in an aqueous solution and that optionally contains a compound that absorbs and converts light or radiation to heat and/or a colored dye or pigment coated from a solvent that does not substantially dissolve the first layer; and

a third or top layer over the converted first layer and composed of a polymeric material which is soluble or dispersible in an aqueous solution and that optionally contains a compound that absorbs and converts light or radiation to heat and/or a colored dye or pigment; the first intermediate layer and the third layer being applied with a solvent that does not substantially dissolve the converted first layer.